34. (New) A method in accordance with claim 27, wherein the step of routing the network data traffic through an alternate communication path further comprises the step of:

selecting the alternate communication path.

R E M A R K S

Reconsideration of the application in view of the above amendments and following remarks is respectfully requested. Claims 1, 2, 7, 8, 9, 12, 13, 15, 16, 21, 22, 23, 24, 27 and 29 have been amended, and new claims 31-34 have been added. Therefore, claims 1-34 are pending in the application.

Due Date Fell on a Saturday

Applicant submits that because the 3-month due date of October 5, 2002, fell on a Saturday, this amendment is timely filed within the three month shortened statutory period by being mailed on the next succeeding business day, which is October 7, 2002, pursuant to 37 C.F.R. § 1.7(a).

Information Disclosure Statement

Applicant has submitted a Supplemental Information Disclosure Statement (IDS) for this application herewith. Therefore, Applicants respectfully request the Examiner to consider the listed references and to provide an initialed and signed copy of the Form PTO-1449 with the next paper in this application.

Amendments to the Specification

In view of the amendments to the claims, which as discussed below are clearly supported by the specification,

Applicant has amended the Summary of the Invention in order to make the summary commensurate with the invention as claimed, as required by 37 C.F.R. § 1.73.

Double Patenting Rejections

The Examiner rejected claims 1-30 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-29 of U.S. Patent Application No. 09/482,782 ("Willebrand et al.") in view of U.S. Patent No. 5,966,229 to Dodley et al. ("Dodley et al."). Applicants respectfully traverse these rejections.

Applicants have amended independent claims 1, 15, 23, 27 and 29 in a manner that overcomes these rejections. Namely, Applicants have amended independent claim 1 to recite that the network data traffic is routed through an alternate communication path in response to data "obtained from the step of monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links". Independent claims 15, 23, 27 and 29 have been similarly amended. These amendments are clearly supported by Applicant's specification at, for example, pages 7 and 9-10.

The Examiner states that Willebrand et al. "does not specifically disclose monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links." (Office Action mailed 7/5/02, page 3). Therefore, it follows that Willebrand et al. also does not disclose the step of "routing the network data traffic through an alternate communication path in response to data obtained from the step of monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links", as is now recited in Applicant's amended independent claim 1. In view of this amendment to

independent claim 1, as well as the similar amendments to independent claims 15, 23, 27 and 29, Applicants submit that all of the obviousness-type double patenting rejections should be withdrawn.

Furthermore, with respect to Applicant's independent claim 29, the Examiner simply has not identified where Willebrand et al. or Dodley et al. disclose the steps of "selecting an alternate communication path for the network data traffic in response to the alarm" and "re-evaluating the alternate communication path selection", as is recited in Applicant's claim 29. This is another reason why the obviousness-type double patenting rejection of this claim should be withdrawn.

Claim Rejections under 35 U.S.C. § 103 based on Dodley et al. and Zavrel

The Examiner rejected claims 1-4, 6-12, 15-18 and 20-26 under 35 U.S.C. § 103(a) as being unpatentable over Dodley et al. in view of U.S. Patent No. 5,585,953 to Zavrel ("Zavrel"). Applicant respectfully traverses these rejections.

Claim 1

Applicant submits that the rejection of claim 1 should be withdrawn because Dodley et al. in view of Zavrel does not establish a *prima facie* case of obviousness of Applicant's amended independent claim 1 for several reasons.

(1) The combined references do not disclose all of the limitations of claim 1:

The Examiner admits that Dodley et al. "does not disclose routing the network data traffic though [sic] an alternate communication path in response to data indicative of at least one of the one or more environmental conditions falling below

a predetermined level". (Office Action mailed 7/5/02, page 8). As such, the Examiner contends that Zavrel shows routing the network data traffic through an alternate communication path.

Applicant submits that the combination of Dodley et al. and Zavrel does not disclose all of the limitations of claim 1. Specifically, the combination does not disclose the entire step of "routing the network data traffic through an alternate communication path in response to data indicative of at least one of the one or more environmental conditions falling below a predetermined level", as was recited in Applicant's original claim 1, nor do the combined references disclose the entire step of "routing the network data traffic through an alternate communication path in response to data obtained from the step of monitoring one or more environmental conditions", as is now recited in Applicant's amended claim 1.

Dodley et al. is specifically directed to adjusting the power and wavelength of the transmitted laser beam of a free-space optical communications transmitter in order to counteract the adverse affects caused by atmospheric absorption of the transmitted light and by limited visibility due to inclement weather conditions. Zavrel discloses a radio that is modified by adding an IR transmitter 24 and receiver 26 thereto. The RF devices or the IR devices may be selected by switches 20, 22, but Zavrel fails to disclose any reason or necessity for switching between them, and Zevrel says nothing about environmental conditions or weather.

The Examiner presumably contends that in the combined references Zavrel's switches 20, 22 are used for routing network data traffic through an alternate path. Applicant respectfully disagrees. Even assuming that Dodley et al. and Zavrel can be properly combined, there is still nothing in the

combination that discloses or teaches that Zavrel's switches 20, 22 will be operated "in response to data obtained from the step of monitoring one or more environmental conditions", as is recited in Applicant's amended claim 1. Moreover, Applicant submits that it would not be obvious to a person of ordinary skill in the art to modify Zavrel's switches 20, 22 to operate in response to environmental condition data because this would destroy Zavrel's intended function that the IR devices be coupled "user-selectably" by switches 20, 22. (See Zafrel, col. 2, lines 1-3).

What's more, nothing in the combination of Dodley et al. and Zavrel discloses or suggests that Zavrel's simple user-selectable manual switches 20, 22 are automatically operated to route network data traffic.

Therefore, because the combination of Dodley et al. and Zavrel does not disclose the entire "routing" step of Applicant's amended independent claim 1, a *prima facie* case of obviousness has not been established.

(2) The proposed modification to Dodley et al. would change its principle of operation:

Section 2143.01 of the Manual of Patenting Examining Procedure (MPEP) states:

> "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious."
>
> MPEP § 2143.01 Suggestion or Motivation To Modify the References.

As mentioned above, Dodley et al. is specifically directed to adjusting the power and wavelength of a free-space transmitted laser beam in order to counteract the adverse affects caused by atmospheric absorption of the transmitted

light and by limited visibility due to inclement weather conditions. Dodley et al. does not suggest the use of a radio or of an alternate communication path in any way. Rather, Dodley et al.'s primary focus is to maximize the transmission of the laser beam through the atmosphere to the remote receiver. (See Dodley et al., col. 1, lines 61-63). In other words, Dodley et al.'s entire purpose is to keep the free-space optical communications path operational. Dodley et al. even states that "[t]o maintain a stable and reliable optical communications link between transmitter node 12 and receiver node 14, the intensity of beam 26 that reaches receiver 28 must be controlled." (Dodley et al., col. 3, lines 30-34).

Attempting to modifying Dodley et al. to add an alternate communication path as is recited in Applicant's claim 1 would change Dodley et al.'s principle of operation. This is because Dodley et al. maintains stable and reliable communications based on the principle of adjusting the power and wavelength of the transmitted laser beam of the free-space optical communications transmitter. The addition of an alternate communication path to Dodley et al. would be basing the maintenance of stable and reliable communications on a completely different principle than what Dodley et al. discloses. Namely, the addition of an alternate communication path would render irrelevant Dodley et al.'s exhaustive discussion of adjusting the power and wavelength of the transmitted laser beam and the use of a chamber containing atmospheric gases that simulate the absorption spectrum of the light-absorbing atmospheric gases present in the free-space optical path of the transmitted beam.

Therefore, because the proposed modifications to Dodley et al. would change its principle of operation, a person of ordinary skill in the art would not find a reason to make the

modifications, which means that a *prima facie* case of obviousness of Applicant's amended independent claim 1 has not been established.

(3) The proposed combination and modifications would destroy the intended functions of both Dodley et al. and Zavrel:

Section 2143.01 of the MPEP states:

> "If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)."

MPEP § 2143.01 Suggestion or Motivation To Modify the References.

The proposed combination would destroy the intended function of Dodley et al. Namely, Zavrel teaches that the received IR signal is modulated at the RF baseband, which apparently makes switching between RF and IR easily accomplished. (See Zavrel, col. 2, line 37 to col. 3, line 20). If Zavrel's RF components were somehow combined with Dodley et al.'s system, Zavrel's intended relationship between the frequencies of his RF and IR signals would destroy Dodley et al.'s intended function of adjusting the wavelength of the transmitted laser beam. That is, the wavelength of Dodley et al.'s transmitted laser beam could not be adjusted while maintaining the frequency relationship between the IR and RF signals as taught by Zavrel.

The intended function of Zavrel would also be destroyed. As mentioned above, the proposed combination of Dodley et al. and Zavrel would require that Zavrel's switches 20, 22 be modified to operate "in response to data obtained from the step of monitoring one or more environmental conditions", as

is recited in Applicant's amended claim 1. If Zavrel's switches 20, 22 were modified to operate in this manner, they might be activated against the radio user's wishes, which would destroy Zavrel's intended function that the IR devices be coupled "user-selectably" by switches 20, 22. (See Zafrel, col. 2, lines 1-3).

Therefore, the modifications that would be required to properly combine Dodley et al. and Zavrel would destroy the intended purpose and function of each reference. As such, a person of ordinary skill in the art would not find a reason to make the proposed combination or modifications, which means that a *prima facie* case of obviousness of Applicant's amended independent claim 1 has not been established.

(4) There is no basis in the art for combining or modifying Dodley et al. and Zavrel:

Section 2143 of the MPEP states:

> "To establish a *prima facie* case of obviousness . . . . there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings."

MPEP § 2143 Basic Requirements of a *Prima Facie* Case of Obviousness.

Again, Dodley et al. is specifically directed to adjusting the power and wavelength of a free-space optical transmitted laser beam and does not suggest the use of a radio or of an alternate communication path in any way. Zavrel discloses a radio that is modified by adding a simple IR transmitter 24 and receiver 26 thereto. Zavrel discloses nothing about weather, environmental conditions, atmospheric absorption, or limited visibility due to inclement weather.

Applicant submits that there is no suggestion or motivation to combine Dodley et al. and Zavrel. Namely, a person of ordinary skill in the art following the teachings of Dodley et al. to maximize the transmission of a laser beam through the atmosphere would have no motivation whatsoever to use the teachings of Zavrel, which is primarily a radio patent and says nothing about atmospheric absorption or limited visibility due to inclement weather conditions. Therefore, because there is no logical reason why Dodley et al. and Zavrel would be combined, a *prima facie* case of obviousness of Applicant's amended independent claim 1 has not been established.

Claims 2-4, 6-12, 15-18 and 20-26

Having established that the combination of Dodley et al. and Zavrel does not establish a *prima facie* case of obviousness of Applicant's amended independent claim 1, Applicant submits that the combination also does not establish a prima facie case of obviousness of Applicant's amended independent claims 15 and 23 for the same reasons. Furthermore, claims 2-4, 6-12, 16-18, 20-22 and 24-26 are allowable by virtue of their dependence from their respective indpendent claim.

In addition, with respect to amended independent claim 15, the combination of Dodley et al. and Zavrel do not teach or suggest "routing the network data traffic through an alternate communication path in response to a failure in the step of attempting to adjust", as recited in claim 15. Similar to the above remarks with respect to claim 1, the combination of references does not disclose that Zavrel's simple user-selectable manual switches 20, 22 route network data traffic in response to a failure in a step of attempting

to adjust one or both of a transmission power and receive sensitivity. Moreover, any attempt to modify the references to perform this step would destroy their intended functions and change their principles of operation. It is also noted that the Examiner has not identified where Dodley et al. or Zavrel teach or suggest adjusting "receive sensitivity" as recited in claim 15.

With respect to claims 3, 17 and 25, Applicant respectfully disagrees with the Examiner that the combination of Dodley et al. and Zavrel teach or suggest that "the alternate communication path comprises more than one mode of communication" as recited in these claims. Applicant explained in his specification on pages 8-9 that the alternate communication path itself may use more than one mode of communication. For example, one part of the alternate communication path may use fiber optic cable, another part of the same alternate communication path may use RF communications, and still another part of the same alternate communication path may use wire cable. Neither Dodley et al. nor Zavrel even come close to teaching or suggesting this concept.

With respect to amended claims 8 and 22, Applicant submits that the combination of Dodley et al. and Zavrel does not disclose "rerouting the network data traffic over the one or more free-space optical links in the free-space optical network in response to additional data obtained from monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links" for substantially the same reasons set forth above for claim 1.

With respect to claim 10, Applicant respectfully disagrees with the Examiner that Dodley et al. discloses the

claimed step of "polling". Certainly Dodley et al.'s FIGS. 1 and 2 do not show any polling as the Examiner contends.

Claim Rejections under 35 U.S.C. § 103 based on Dodley et al., Zavrel and Bae

The Examiner rejected claims 5, 13, 14, 19 and 27-30 under 35 U.S.C. § 103(a) as being unpatentable over Dodley et al. in view of Zavrel and further in view of U.S. Patent No. 5,790,286 to Bae ("Bae"). Applicant respectfully traverses these rejections.

Applicant submits that the rejection of claims 5, 13, 14, 19 and 27-30 should be withdrawn in view of above remarks that Dodley et al. and Zavrel cannot be properly combined. This is because if Dodley et al. and Zavrel cannot be properly combined, then Dodley et al., Zavrel and Bae cannot be properly combined. Nevertheless, Applicant submits the following additional reasons why these rejections should be withdrawn.

Claim 27

Applicant submits that the combination of Dodley et al., Zavrel and Bae does not establish a *prima facie* case of obviousness of Applicant's amended independent claim 27 for several reasons.

Namely, the combined references do not disclose all of the limitations of amended claim 27 in that the combined references do not disclose the entire step of "sending an alarm over the free-space optical network in response to data obtained from the step of monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links". The Examiner has pointed out that Bae discloses an alarm being sent over an optical cable.

However, there is nothing in the combined references that discloses or suggests sending Bae's alarm over a "free-space optical network". Certainly Bae does not suggest anything about free-space optics or sending an alarm over a free-space network.

Furthermore, there is nothing in the combined references that discloses or suggests sending Bae's alarm "in response to data obtained from the step of monitoring one or more environmental conditions". This is because Bae and Zavrel disclose nothing about environmental conditions or weather, and Dodley et al. discloses nothing about sending an alarm. Moreover, it would not be obvious to a person of ordinary skill in the art to modify Bae's alarm to be sent in response to environmental condition data because this would destroy Bae's intended function and principle of operation that the alarm data (Alarm1 or Alarm2) be indicative of an abnormal existence or a nonexistence of the operation upon transmitting the data to the respective receiver (RX1 or RX2) due to a fault in either the optical/electrical or electrical/optical converters. (See Bae, col. 1, lines 53-58, and col. 4, lines 13-47).

Applicant also submits that the combined references do not disclose the entire step of "rerouting the network data traffic over the one or more free-space optical links in the free-space optical network in response to additional data obtained from monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links" for substantially the same reasons set forth above for claim 1, 8 and 22.

Applicant also submits that Bae cannot be properly combined with Dodley et al. and Zavrel. Similar to as discussed above, a person of ordinary skill in the art

following the teachings of Dodley et al. to maximize the transmission of a free-space optical communication laser beam through the atmosphere would have no motivation whatsoever to use the teachings of Bae, which is directed only to data transmission through optical cables. Furthermore, any attempt to modify Dodley et al. to incorporate Bae's system would change Dodley et al.'s principle of operation as described above.

Claim 29

Applicant submits that the combination of Dodley et al., Zavrel and Bae does not establish a *prima facie* case of obviousness of Applicant's amended independent claim 29 for all of the same reasons given above for claim 27, as well as the following additional reason.

Specifically, the Examiner has simply not identified where any of the cited references disclose the steps of "selecting an alternate communication path for the network data traffic in response to the alarm" and "re-evaluating the alternate communication path selection", as recited in Applicant's claim 29. The Examiner appears to have disregarded these steps in the examination of claim 29.

An example of an alternate communication path selection method was provided by Applicant in FIG. 5 of his application. The method is very useful because it allows for the selection of the type of alternate communication path that is most appropriate for the circumstances. Applicant submits that the combination of Dodley et al., Zavrel and Bae does not disclose or suggest the step of "selecting an alternate communication path" or anything like it.

Applicant would like to emphasize that in the above remarks several grounds have been identified as to why a *prima*

facie case of obviousness of Applicant's claim 29 has not been established.

Claims 5, 13, 14, 19, 28 and 30

In view of the remarks set forth above that the rejection of independent claims 1, 15, 27 and 29 should be withdrawn, Applicant submits that claims 5, 13, 14, 19, 28 and 30 are allowable by virtue of their dependence from their respective independent claims.

Furthermore, Applicant submits that claim 13 is allowable for reasons similar to as discussed above with respect to claim 27.

Applicant also submits that claims 28 and 30 are allowable for reasons similar to as discussed above with respect to claims 3, 17 and 25. And as with Dodley et al. and Zavrel, Bae does not teach or suggest the concept of more than one mode of communication recited in these claims.

New Claims 31-34

Applicant has added new dependent claims 31-34, which are clearly supported by Applicant's original independent claim 29, as well as his specification and FIG. 5.

Fee For Additional Claims

When this application was filed a fee was paid for a total of 30 claims with 5 claims being independent claims. The above amendment results in there being a total of 34 claims with 5 claims being independent claims. Thus, a fee is believed to be due for 4 extra dependent claims.

Version with Markings

A version with markings to show changes made begins on the following page.

CONCLUSION

In view of the above, Applicant submits that the pending claims are in condition for allowance, and prompt and favorable action is earnestly solicited. Applicant has made a diligent effort to place the claims in condition for allowance. However, should there remain any outstanding issues that require adverse action, it is respectfully requested that the Examiner telephone Richard E. Wawrzyniak at (858)552-1311 so that such issues may be resolved as expeditiously as possible.

Respectfully submitted,

Dated 10/7/02

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Specification:

Delete the SUMMARY OF THE INVENTION section beginning on page 1, line 30 and replace such deleted section with the following replacement section:

SUMMARY OF THE INVENTION

The present invention advantageously addresses the needs above as well as other needs by providing a method of managing a free-space optical network. The method includes the steps of: directing network data traffic over one or more free-space optical links in the free-space optical network; monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links; and routing the network data traffic through an alternate communication path in response to data obtained from the step of monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links [~~indicative of at least one of the one or more environmental conditions falling below a predetermined level~~].

In another embodiment, the invention provides a method of managing a free-space optical network. The method includes the steps of: directing network data traffic over one or more free-space optical links in the free-space optical network; monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links; attempting to adjust one or both of a transmission power and receive sensitivity of one or more of the free-space optical links in response to data obtained from the step of monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links [~~indicative of at least one of the one or more environmental~~

~~conditions falling below a predetermined level~~]; and routing the network data traffic through an alternate communication path in response to a failure in the step of attempting to adjust.

In another embodiment, the invention can be characterized as a system for managing a free-space optical network. The system includes means for monitoring one or more environmental conditions in a vicinity of at least one of one or more free-space optical links in the free-space optical network, and means for routing network data traffic through an alternate communication path in response to data obtained from the means for monitoring one or more environmental conditions in a vicinity of at least one of one or more free-space optical links in the free-space optical network [~~indicative of at least one of the one or more environmental conditions falling below a predetermined level, and means for rerouting the network data traffic over the one or more free-space optical links in the free-space optical network in response to data indicative of at least one of the one or more environmental conditions rising above the predetermined level~~].

In another embodiment, the invention provides a method of managing a free-space optical network that includes the steps of: directing network data traffic over one or more free-space optical links in the free-space optical network; monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links; sending an alarm over the free-space optical network in response to data obtained from the step of monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links [~~indicative of at least one of the one or more environmental conditions falling~~

~~below a predetermined level~~]; routing the network data traffic through [~~though~~] an alternate communication path in response to the alarm; and rerouting the network data traffic over the one or more free-space optical links in the free-space optical network in response to additional data obtained from monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links [~~indicative of at least one of the one or more environmental conditions rising above the predetermined level~~].

In yet another embodiment, the invention provides a method of managing a free-space optical network that includes the steps of: directing network data traffic over one or more free-space optical links in the free-space optical network; monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links; sending an alarm over the free-space optical network in response to data obtained from the step of monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links [~~indicative of at least one of the one or more environmental conditions falling below a predetermined level~~]; selecting an alternate communication path for the network data traffic in response to the alarm; routing the network data traffic through [~~though~~] the alternate communication path; re-evaluating the alternate communication path selection; and rerouting the network data traffic over the one or more free-space optical links in the free-space optical network in response to additional data obtained from monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links [~~indicative of at least one of the one or more environmental conditions rising above the predetermined level.~~].

A better understanding of the features and advantages of the present invention will be obtained by reference to the following detailed description of the invention and accompanying drawings which set forth an illustrative embodiment in which the principles of the invention are utilized.

In the Claims:

Please AMEND claims 1, 2, 7, 8, 9, 12, 13, 15, 16, 21, 22, 23, 24, 27 and 29 as follows:

1. (Amended) A method of managing a free-space optical network, comprising the steps of:

directing network data traffic over one or more free-space optical links in the free-space optical network;

monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links; and

routing the network data traffic through [~~though~~] an alternate communication path in response to data obtained from the step of monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links [~~indicative of at least one of the one or more environmental conditions falling below a predetermined level~~].

2. (Amended) A method in accordance with claim 1, wherein the alternate communication path comprises a communication path that is not adversely affected by [~~the at least one of~~] the one or more environmental conditions.

7. (Amended) A method in accordance with claim 1,

wherein the alternate communication path comprises a free-space optical link that is not adversely affected by [~~the at least one of~~] the one or more environmental conditions.

8. (Amended) A method in accordance with claim 1, further comprising the step of:

rerouting the network data traffic over the one or more free-space optical links in the free-space optical network in response to additional data obtained from monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links [~~indicative of at least one of the one or more environmental conditions rising above the predetermined level~~].

9. (Amended) A method in accordance with claim 1, wherein the step of monitoring one or more environmental conditions comprises the step of:

collecting [~~the~~] data indicative of at least one of the one or more environmental conditions with an instrument located in the vicinity of the at least one of the one or more free-space optical links.

12. (Amended) A method in accordance with claim 9, wherein the step of monitoring one or more environmental conditions further comprises the step of:

comparing the data indicative of at least one of the one or more environmental conditions to a [~~the~~] predetermined level.

13. (Amended) A method in accordance with claim 9, wherein the step of monitoring one or more environmental conditions further comprises the step of:

sending an alarm over the free-space optical network in response to the data indicative of at least one of the one or more environmental conditions [~~falling below the predetermined level~~].

15. (Amended) A method of managing a free-space optical network, comprising the steps of:

directing network data traffic over one or more free-space optical links in the free-space optical network;

monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links;

attempting to adjust one or both of a transmission power and receive sensitivity of one or more of the free-space optical links in response to data obtained from the step of monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links [~~indicative of at least one of the one or more environmental conditions falling below a predetermined level~~]; and

routing the network data traffic through an alternate communication path in response to a failure in the step of attempting to adjust.

16. (Amended) A method in accordance with claim 15, wherein the alternate communication path comprises a communication path that is not adversely affected by [~~the at least one of~~] the one or more environmental conditions.

21. (Amended) A method in accordance with claim 15, wherein the alternate communication path comprises a free-space optical link that is not adversely affected by [~~the at least one of~~] the one or more environmental conditions.

22. (Amended) A method in accordance with claim 15, further comprising the step of:

rerouting the network data traffic over the one or more free-space optical links in the free-space optical network in response to additional data obtained from monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links [~~indicative of at least one of the one or more environmental conditions rising above the predetermined level~~].

23. (Amended) A system for managing a free-space optical network, comprising:

means for monitoring one or more environmental conditions in a vicinity of at least one of one or more free-space optical links in the free-space optical network; and

means for routing network data traffic through [~~over~~] an alternate communication path in response to data obtained from the means for monitoring one or more environmental conditions in a vicinity of at least one of one or more free-space optical links in the free-space optical network [~~indicative of at least one of the one or more environmental conditions falling below a predetermined level; and~~]

[~~means for rerouting the network data traffic over the one or more free-space optical links in the free-space optical network in response to data indicative of at least one of the one or more environmental conditions rising above the predetermined level~~].

24. (Amended) A system in accordance with claim 23, wherein the alternate communication path comprises a

communication path that is not adversely affected by [~~the at least one of~~] the one or more environmental conditions.

27. (Amended) A method of managing a free-space optical network, comprising the steps of:

directing network data traffic over one or more free-space optical links in the free-space optical network;

monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links;

sending an alarm over the free-space optical network in response to data obtained from the step of monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links [~~indicative of at least one of the one or more environmental conditions falling below a predetermined level~~];

routing the network data traffic through [~~though~~] an alternate communication path in response to the alarm; and

rerouting the network data traffic over the one or more free-space optical links in the free-space optical network in response to additional data obtained from monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links [~~indicative of at least one of the one or more environmental conditions rising above the predetermined level~~].

29. (Amended) A method of managing a free-space optical network, comprising the steps of:

directing network data traffic over one or more free-space optical links in the free-space optical network;

monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical

links;

sending an alarm over the free-space optical network in response to data obtained from the step of monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links [~~indicative of at least one of the one or more environmental conditions falling below a predetermined level~~];

selecting an alternate communication path for the network data traffic in response to the alarm;

routing the network data traffic through [~~though~~] the alternate communication path;

re-evaluating the alternate communication path selection; and

rerouting the network data traffic over the one or more free-space optical links in the free-space optical network in response to additional data obtained from monitoring one or more environmental conditions in a vicinity of at least one of the one or more free-space optical links [~~indicative of at least one of the one or more environmental conditions rising above the predetermined level~~].